

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of scanning comprising ~~the steps of:~~
providing a scanning system ~~(10)~~ having a sample holder ~~(14,220,54)~~ and a relatively movable scanning device ~~(18)~~;
performing a scan of at least a part of an object ~~(22,250,52)~~ located on the sample holder and of at least a portion of a surface of the sample holder;
establishing orientation of a plane of the sample holder ~~(14,220,54)~~; and
interpreting data from the scan using the orientation of the sample holder
~~characterised in that~~, the orientation is being established using data from the scan of the object.
2. (Currently Amended) A method according to claim 1 wherein, the orientation is established by defining a plane ~~(56b)~~ of the sample holder.
3. (Currently Amended) A method according to claim 2 wherein, the plane in which orientation is established is limited by boundaries ~~(76a,76b)~~.
4. (Currently Amended) A method according to claim 1 wherein, the orientation is established by extracting at least three measurements.
5. (Currently Amended) A method according to claim 1 wherein, the orientation is established by extracting data for at least 240° around the surface of the sample holder.
6. (Currently Amended) A method according to claim 1 wherein, the orientation is established by measuring during a single process.
7. (Currently Amended) A method according to claim 1 wherein, the orientation is established by measuring during more than one discrete processes.

8. (Currently Amended) A method according to claim 1 wherein, the orientation is established within a defined vertical envelope with respect to the sample holder.

9. (Currently Amended) A method of scanning comprising ~~the steps of:~~
providing a scanning system-(10) having a sample holder ~~(14,220,54)~~ and a relatively movable scanning device ~~(18)~~;

scanning a datum;

scanning a sample; and

interpreting data from the sample scan using data from the datum scan;

~~characterised in that~~wherein the scanning system automatically carries out the datum and sample scans.

10. (Currently Amended) A method of scanning comprising ~~the steps of:~~
providing a scanning system-(10) having a sample holder ~~(14,220,54)~~ and a relatively movable scanning device ~~(18)~~;

scanning a datum;

scanning a sample; and

interpreting data from the sample scan using data from the datum scan;

~~characterised in that~~wherein both the datum and sample scans are carried out effectively as one scan.

11. (New) The method of scanning according to claim 1 wherein the scan of the object and the scan of at least a portion of the sample holder are conducted as a single scan.

12. (New) The method of scanning according to claim 9 wherein the scanning a datum and the scanning a sample are conducted as a single scan.